OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
(916) 274-5721
FAX (916) 274-5743
www.dir.ca.gov/oshsb



Attachment No. 2

INITIAL STATEMENT OF REASONS

CALIFORNIA CODE OF REGULATIONS

TITLE 8: Chapter 4, Subchapter 4, Article 6, Section 1541 of the Construction Safety Orders

Excavations, General Requirements

SUMMARY

This rulemaking is in response to a catastrophic accident that took place on November 9, 2004, in Walnut Creek, California when a high-pressure petroleum pipe was punctured during an excavation. An explosion and fire was ignited by welders working in proximity to the excavation resulting in five deaths and injury to employees.

The Division of Occupational Safety and Health (Division) conducted a six-month investigation which concluded that one of the principal causes of the accident was not determining the precise location of a high-pressure combustible fuel pipeline prior to conducting excavation activities. The excavation constructor's backhoe struck and punctured the pipeline, which resulted in the explosion and fire.

The Division's accident investigation findings were discussed on June 10, 2005, at the Senate Select Committee on Bay Area Infrastructure: Informational Hearing on Pipeline Explosion, convened by the committee chairman, State Senator Tom Torlakson, D-Antioch at the Walnut Creek City Hall. The meeting was attended by representatives from East Bay Municipal Utility District (EBMUD), the Division, the Occupational Safety and Health Standards Board (Board), Associated General Contractors of California (AGC California), Office of the State Fire Marshal and the Engineering and Utility Contractors Association (EUCA). The meeting also provided time for public comment.

On July 26, 2005, the Board staff convened an advisory committee meeting consisting of subject matter experts in the fields of excavation, construction, subsurface installation detection, subsurface utility owners/operators, design engineers, utility companies and a relevant cross section of labor representatives including those representing the laborers who died in the November 9, 2004, Walnut Creek explosion and fire. The consensus of the one-day meeting was that a smaller, focused subcommittee should be convened to consider proposed amendments to California's excavation standards contained in Section 1541 of the Construction Safety Orders (CSO).

On September 28, 2005, the Board staff convened a subcommittee meeting to consider proposed amendments to Section 1541. This committee included (1) representatives from labor including the Operating Engineers, International Brotherhood of Electrical Workers (IBEW), Laborers International Union of North America (LIUNA), (2) utility companies, (3) AGC California, (4) local jurisdiction installation owners, (5) design engineers and (6) EUCA. The one-day meeting resulted in a consensus proposal. The full advisory committee was sent a copy of the proposal for review and comment. Several comment letters were received by Board staff and evaluated by Division and Board staff. The Board and Division staff's review of the committee's comment letters resulted in further revisions to the proposal and a decision that further meetings were unnecessary.

This proposal clarifies that Section 1541 applies to subsurface facilities such as sewer, telephone, fuel, electric and other subsurface facilities as specified. This proposal contains new language referencing portions of the California Government Code (GC) Section 4216 necessary to ensure excavators understand their responsibilities prior to digging. GC Section 4216 contains statutory requirements that excavators are to comply with. The proposal also contains new language addressing meet and confer procedures between excavators and owner/operators of high priority (risk) subsurface facilities, as the proposal defines, such as high-pressure petroleum pipelines when excavation is to occur within 10 feet of or in conflict with high priority facilities. The proposal also clarifies the definition of a qualified subsurface installation locator in terms of training and addresses required action by excavators who discover or cause damage to subsurface installations. Board staff relied on a number of notable industry consensus guidelines such as the Common Ground Alliance (CGA), Best Practices, Version 2.0 manual and the National Utility Locating Contractors Association (NULCA) and the California Department of Transportation, Policy on High and Low Risk Underground Facilities Within Highway Right of Way-January 1997.

SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

Section 1541. General Requirements.

This section contains Title 8 requirements addressing various safety issues pertaining to excavations which include but are not limited to: safeguarding employees from hazardous surface encumbrances, work involving subsurface installations including estimating their location, responsibilities of regional notification centers (RNC) to notify both RNC members and non-members of an excavation at least two working days prior to the proposed work, determination of the exact location of subsurface installations when the excavation is proposed in proximity to the subsurface installation, access and egress to and from excavations, means of egress, hazardous atmospheres, emergency rescue, protection water accumulation, stability of adjacent structures, and the protection of employees from loose rock or soil.

Subsection (b)(1)

Amendments for clarity are proposed for Section 1541(b)(1) through subsection (b)(4) to delete use of the term "underground" and replace it with "subsurface" to be consistent with GC Section 4216(j). Another amendment is proposed for subsection (b)(1) to clarify that the "approximate" rather than "estimated" location of subsurface installations are to be determined prior to excavation. The proposed amendments are necessary to clarify to the employer that consistent

Excavations, General Requirements Initial Statement of Reasons Page 3 of 7

with the GC subsurface requirements, the excavator is to determine the approximate location of subsurface utilities prior to digging.

Subsection (b)(1)(A)

A new subsection (A) is proposed, consistent with the GC 4216.2, that would prohibit excavation until the area has been marked by the excavator and the excavator has received notification (positive response) from all known subsurface installation owners/operators within the boundaries of the proposed excavation. The proposed subsection (A) is necessary to clarify to the employer that a positive response is to be received prior to the start of any excavation.

Subsection (b)(1)(B)

A new subsection (B) is proposed that would require an onsite meeting to be held between the excavator and the subsurface installation owner/operator when an excavation is proposed within 10 feet of or in conflict with a high priority subsurface installation as defined within the context of subsection (B). High priority subsurface installations include natural gas pipelines, petroleum pipelines, pressurized sewage pipelines, high voltage electrical supply lines, conductors or cables that have a potential to ground of more than 60,000 volts (60kV), and hazardous materials pipelines that present risk to the employees or the public. The proposal is necessary to ensure that excavators take the steps necessary to ensure they know the location of high priority subsurface utilities *before* they dig. The onsite meeting would give the excavator the critical information necessary to avert catastrophic contact between excavation equipment and a high priority installation. This would avoid serious injury or fatality to employees and the general public as well as loss or disruption of functioning utilities, communication, electric power which could also indirectly result in harm to the safety and health of the general public.

Subsection (b)(1)(C)

A new subsection (C) is proposed that would require all subsurface installation locators to perform location procedures in accordance with the GC sections specified in the text of the proposal. The proposal would also require that locators be trained in accordance with existing Section 1509, Injury and Illness Prevention Program (IIPP) requirements and the minimum training guidelines of the CGA Best Practices, Version 2.0, December 2004, or the NULCA Standard 101, 2001, in order to be deemed qualified. The proposal is necessary to ensure that any person who is called upon to perform locating activities is competent to make an accurate determination as to the location of the subsurface installation in order to avoid inadvertent contact.

Subsection (b)(1)(D)

A new subsection (D) is proposed that would require all employees to be trained in excavator notification and excavator practices required by this section and applicable portions of the GC as indicated in the proposed text. The proposed amendment is necessary to emphasize and clarify to the employer that consistent with existing General Industry Safety Orders (GISO) and CSO, IIPP requirements, employees who are involved in excavation operations are to be trained in the requirements set forth in Section 1541 and the relevant portions of the GC.

Subsection (b)(2)

Existing subsection (b)(2) requires all Regional Notification Centers, as defined in the GC, in the areas involved in the excavation and all known owners of subsurface facilities in the area who are not members of the Regional Notification Center to be advised of the proposed excavation work two days prior to digging. This subsection contains an exception that excludes subsurface installation emergency repair work from the two-day notice requirement. The proposed amendment is necessary to clarify that emergency repair work, as defined in the GC, is excluded from the notification requirement described above.

Subsection (b)(3)

Existing subsection (b)(3) requires all excavators that approach the estimated location of subsurface installations to determine the exact location of the installation by safe and acceptable means. Amendments are proposed to include boring operations and replace the term "estimated" with "approximate" consistent with the proposed amendment to subsection (b)(1). The proposed amendments are necessary to clarify to the employer that the exact location of the subsurface installation is to be determined by safe and acceptable means that will prevent damage to the subsurface installation as defined in the GC.

Subsection (b)(5)

A new subsection (b)(5) is proposed that would require excavators who cause or discover damage to subsurface facilities to notify the installation owner/operator or the one call center immediately and report the damage to the subsurface installation. The proposed new language is necessary to ensure that damaged subsurface facilities are repaired in order to prevent release of toxic or hazardous materials which could endanger employees and/or the general public, or if left undetected could cause a fire, explosion and/or interruption of vital utilities.

DOCUMENTS RELIED UPON

- 1. Policy on High and Low Risk Underground Facilities Within Highway Rights of Way, State of California Department of Transportation (Cal-Trans), Design and Local Programs Program, January 1997.
- 2. Report of Investigation, Fatal Accident, Multi-Employer, East Bay Municipal Utility District, Kinder Morgan Energy Partners L.P., Comforce Technical Services, Mountain Cascade, Inc., Matamoros Pipelines, Inc., Camp Dresser and McKee, Inc., Carollo Engineers, P.C., November 9, 2004.
- 3. California State Senate, Senator Tom Torlakson, Seventh Senate District, Agenda, Senate Select Committee On Bay Area Infrastructure: Informational Hearing on Pipeline Explosion, June 10, 2005, Walnut Creek City Hall.
- 4. Letter dated January 20, 2006, from Sempra Energy Utilities, Southern California Gas Company, San Diego Gas and Electric to the Occupational Safety and Health Standards Board (OSHSB), re: comments on proposed state standards, Title 8, Section 1541.
- 5. Facsimile dated January 10, 2006, from Pacific Gas and Electric Company to the OSHSB, re: comments on proposed state standards, Title 8, Section 1541.
- 6. Letter dated December 29, 2005, from Teichert Construction to the OSHSB, recomments on proposed state standards, Title 8, Section 1541.

- 7. Letter dated January 3, 2006, from Southern California Edison to the OSHSB, recomments on proposed state standards, Title 8, Section 1541.
- 8. Facsimile dated January 3, 2006, from Stoel Rives, LLP, Attorneys At Law to the OSHSB, re: comments on proposed state standards, Title 8, Section 1541.
- 9. Letter dated January 3, 2006, from the Construction Employers' Association to the OSHSB, re: comments on proposed state standards, Title 8, Section 1541.
- 10. Letter dated January 3, 2006, from the California Regional Common Ground Alliance to the OSHSB, re: comments on proposed state standards, Title 8, Section 1541.
- 11. Letter dated December 30, 2005, from the East Bay Municipal Utility District to the OSHSB, re: comments on proposed state standards, Title 8, Section 1541.
- 12. Letter dated December 29, 2005, from the Engineering & Utility Contractors Association to the OSHSB, re: comments on proposed state standards, Title 8, Section 1541.

These documents are available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

DOCUMENTS INCORPORATED BY REFERENCE

- 1. Common Ground Alliance (CGA), Best Practices, Version 2.0, Published December 2004.
- 2. National Utility Locating Contractors Association (NULCA) Standards Committee Standard 101: Professional Competence Standards for Locating Technicians, 2001 First Edition.

These documents are too cumbersome or impractical to publish in Title 8. Therefore, it is proposed to incorporate the documents by reference. Copies of these documents are available for review Monday though Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action. See Impact on Businesses below.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

<u>Impact on Businesses</u>

The Board has made a determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. The proposal will require employers to provide enhanced training for employees who conduct subsurface installation locating consistent with existing Title 8, IIPP construction industry requirements. Also consistent with existing Title 8, IIPP requirements, all employees involved in excavation activities would be required to be instructed in the excavation practices and procedures described by the proposed amendments. The proportional cost of providing the proposed training, when compared to typical excavation job costs, is insignificant.

Cost Impact on Private Persons or Businesses

Employers who utilize line-locating technicians may incur some incremental administrative costs associated with training their locating technicians to the level prescribed by the proposed language. However, such incremental employee training is to some extent, already addressed by existing Title 8, IIPP requirements. As stated in the Impact on Businesses section, these costs are expected to be proportionally insignificant in comparison to total project costs and it is reasonable to expect that they would be offset by a reduction in employer liability that would result from accidental contact with subsurface utilities. Such contact could result in employee injury/fatality, equipment damage, adverse economic impact to local businesses, and disruption and restoration of ratepayer services.

Costs or Savings in Federal funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under "Determination of Mandate."

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standards do not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendments will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, these standards do not constitute a "new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution."

The California Supreme Court has established that a "program" within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

These proposed standards do not require local agencies to carry out the governmental function of providing services to the public. Rather, the standards require local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, these proposed standards do not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

These proposed regulations do not impose unique requirements on local governments. All state, local and private employers will be required to comply with the prescribed standards.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments may affect small businesses. However, no economic impact is anticipated.

ASSESSMENT

The adoption of the proposed amendments to these standards will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.